

## ABSTRACT OF THE DISCLOSURE

| 1  | Each of duplicated incoming line cards, connected to respective                 |
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| 2  | input ports of a self-routing switch, receives an incoming packet,              |
| 3  | determines an output port of the switch based on an address contained in        |
| 4  | the packet using routing information stored in a routing table, converts the    |
| 5  | packet into intra-node cells of fixed length and forwards the cells to the      |
| 6  | switch so that the cells are routed to the output port. Each of duplicated      |
| 7  | outgoing line cards, connected to output ports of the switch, receives intra-   |
| 8  | node cells from the switch, converts the cells into a packet, forwards the      |
| 9  | packet to an outgoing transmission line, and monitors the outgoing              |
| 10 | transmission line. A fault indication is sent to the incoming line cards if a   |
| 11 | fault condition is detected in the monitored line. Each incoming line card      |
| 12 | responds to this indication for updating its table so that traffic is routed to |
| 13 | a normally operating outgoing line.   |